

REMARKS

Claims 241, 242, 244, 245, 248-253, 256 and 265-316 are pending.

Telephone interview with the Examiner on October 23, 2008

Applicant appreciates the time that the Examiner took to conduct the telephone conference with the undersigned attorney on October 23, 2008.

During that conference, the Examiner indicated that her notice regarding the term regarding “canceled without prejudice” (Paragraph 2 of the Office Action) should be ignored in view of an Official Gazette notice of July 5, 2005, which stated such a status identifier was acceptable.

At the undersigned’s request, two representative claims, 241 and 276, were discussed as to whether the phrase “encompassing the elected species” would apply should Applicants elect species, 80 to 140 kDa.

Claim 241 relates to fragments in the size range, 6 amino acyl to 140 kDa. Applicant understood from the conference that Claim 241 would therefore encompass the elected species.

Claim 276 relates to a range of fragment sizes, the largest of which would extend from amino acid number I-165 to amino acid Y-982. The undersigned conveyed that Applicant expected such a fragment to be less than 140 kDa (probably of the order of 129 to 130 kDa). Applicant understood from the conference that Claim 276 would therefore not encompass the elected species, as the elected species relates to fragments as large as 140 kDa.

Notice regarding “canceled without prejudice” (Paragraph 2 of the Office Action)

The Examiner put Applicant on notice that the recitation “canceled without prejudice” is not a proper status identifier. As discussed above, the Examiner indicated during the telephone conference that indeed the recitation was a proper status identifier.

Election of species requirement (Paragraph 3 of the Office Action)

The Examiner is requiring that Applicant elect a single disclosed species from the following: 80 to 140 kDa; 40 to 60 kDa; and 20 to 35 kDa.

Preliminarily, Applicant notes that pending claims are for neoplastic disease assays that depend on measuring plasma levels of a thrombospondin fragment or fragments. Accordingly, the three species options define three different size range options for the fragment or fragments whose plasma levels are measured in the assay.

Applicant elects species, 80 to 140 kDa, with traverse. Applicant refers the Examiner to the searches done in related application serial number 10/419,462 (the ‘462 application). The elected claims of the ‘462 application, at the time of those searches, were similar to those of the present application to the extent that they were related to cancer diagnosis based on levels of thrombospondin fragments.

In the ‘462 application, the PAIR system dates for the searches were March 6, 2007 - March 12, 2007. As far as Applicant can determine, the search terms used by the Examiner did

not distinguish between ranges of fragments – they were designed to find any applicable prior art regardless of fragment weight range. Therefore, it would appear that there is no need to distinguish between molecular weight ranges when doing the search or searches for the present application.

Applicant emphasizes that he is not traversing on the grounds that the species are not patentably distinct. His traversal is based on the fact that different search strategies are not required – as can be seen from the searches done in application Ser. No. 10/419,462.

Requirement for “identification of the claims encompassing the elected species”

(Paragraph 3 of the Office Action)

The Examiner has requested “an identification of the claims encompassing the elected species.”

The elected species, fragments in the range 80 to 140 kDa, are encompassed by pending claims 241, 242, 244, 245, 248-253, 256, 265-271, 273-275, 289-311, and 313-316.

Dependent Claim 272 does not encompass the elected species. The pertinent phrase in the claims is “85 to 140 kDa, 47 to 53 kDa, and 27 to 33 kDa”. The claim does not encompass the range, 80 to 84 kDa and therefore does not encompass the entire elected species.

Claim 276, its dependent claims (Claims 277-288) and Claim 312 probably do not encompass the elected species. Those claims probably do not encompass fragments in the range 132 to 140 kDa for the following reasons:

The largest fragment assayed for in claims 276-288 and 312 extends from amino acid

number 165 to amino acid number 982. (Those amino acids are designated as I-165 and Y-982, respectively, in the claims). Such a fragment is 818 amino acids in length. Plasma thrombospondin is expected to be 1152 amino acids in length. (That assumes a signaling peptide of 18 amino acids has been cleaved from 1170-amino acid thrombospondin before thrombospondin appears in the plasma. See page 42 line 15 to page 43, line 3; also see SEQ ID NO:38 for the 1170-amino acid molecule.).

Based on their respective numbers of amino acids, 818 and 1152, the molecular weight of a fragment extending from I-165 to Y-982 will be approximately 71 percent of the size of thrombospondin. A similar estimate is obtained if one uses the web site http://bioinformatics.org.sms/prot_mw.html referred to on page 4 of the application. (It is noted, however, that relying on the number of amino acids or the web site does not take into account glycosylation. Glycosylation could account for roughly a third of the total molecular weight of thrombospondin.)

Plasma thrombospondin has a size of about 185 kDa based on SDS gel electrophoresis after sulfide bond reduction. (See, for example, the application at page 1, lines 23-26). A fragment that is 71 per cent of the size of thrombospondin will therefore have a size of approximately 131 kDa. Since that is the largest fragment size referred to in Claims 276-288 and 312, those claims probably do not encompass fragments in the range 132 to 140 kDa.

The pertinent phrases in independent claims, 241, 249, 289, 297, 303 and 309, indicate why those claims and their dependent claims (other than Claim 312 noted above) encompass the elected species: The pertinent phrases are:

Application ser. no. 10/782,698
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In Claim 241: “at least 6 continuous amino acyl residues in length but of a molecular weight of 140 kDa or less”

In Claim 249: “selected from the group consisting of 80 to 140 kDa, 40 to 60 kDa, and 20 to 35 kDa”;

In Claim 289: “the molecular weight of said fragment or any of said fragments not exceeding 140 kDa, the molecular weight of said fragment or fragments being at least 20 kDa”

In Claim 297: “the molecular weight of each of the fragment or fragments is at least 20 kDa but not more than 140 kDa”

In Claim 303: “the molecular weight selected from the group consisting of 80 to 140 kDa, 40 to 60 kDa, and 20 to 35 kDa”

In Claim 309, there is no size-restricting phrase.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for initial examination and allowance, the Examiner is invited to phone Applicants’ undersigned attorney at his cell phone number, **610-724-2952**.

Respectfully submitted,

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